

ABSTRACT OF THE DISCLOSURE

A change in viral tropism occurs in many HIV positive individuals over time and can be indicated by a shift in coreceptor use from CCR5 to CXCR4. The shift in coreceptor use to 5 CXCR4 has been shown to correlate with increased disease progression. In patients undergoing HAART, the predominant populations of virus can be shifted back to CCR5-mediated entry after the CXCR4-specific strains have emerged. The present invention relates to a diagnostic method to monitor coreceptor use in the treatment of human immunodeficiency virus (HIV) infection. The present invention further relates to a diagnostic method applied to 10 HIV-positive individuals undergoing HAART to monitor the suppression of CXCR4 specific strains. The diagnostic methods can be used to assist in selecting antiretroviral therapy and to improve predictions of disease prognosis over time.